

Amendments to the Specification:

Please replace the paragraph beginning at page 3, paragraph [0009] with the following amended paragraph:

[0009]       The present application teaches ~~[[at]]~~ a device which may measure the charge and size of a large number of airborne particles. The charge on an individual particle may be detected by using a gas flow to draw a particle through a cylindrical electrode that acts as a Faraday cage.

Please replace the paragraph beginning at page 9, paragraph [0026] with the following amended paragraph:

[0026]       An advantage of this system is the simplicity with which the hardware can be formed. The glass capillary can simply be inserted within the ~~two~~ tube electrode 102, and passage of charged particles is carried out through the dielectric material.

Please replace the paragraph beginning at page 9, paragraph [0029] with the following amended paragraph:

[0029]       The trace shown in figure 2A represents the result of a particle transition. For example, the time that the particle takes to make its trace depends on the size of the particle. Different sized particles may have different traces.

Therefore, [[to]] the shape of the curve may be compared with other shaped curves by detector 115. By making this comparison, the size of the particles may be detected. For example, larger particles may accelerate slower and travel less distance based on the airflow in capillary 100. Smaller particles may correspondingly accelerate faster.

Please replace the paragraph beginning at page 10, paragraph [0032] with the following amended paragraph:

[0032] The amplitude of the [curved] curve trace is proportional to particle charge. The duration of the trace indicates the transit time of the particle. There are a variety of signal processing techniques that can be used to obtain amplitude and duration information from pulses at rates of several hundred Hz or more.

Please replace the paragraph beginning at page 11, paragraph [0034] with the following amended paragraph:

[0034] Figure 4 shows a block diagram of the electronics layout of the present system. Power from a power supply 400 is used to power all components of the system. The air pump [[is]] 410 is connected to the sampling head by a flexible hose 415. The capillary and cylindrical sensing electrode are housed

inside the sampling head, 420, The sampling head 420, also contains the FET and feedback elements which form the remote front end of the charge sensitive preamplifier 425. The signal from the preamp 425, is applied to the pulse processing electronic board 430. This board may process the signals using conventional techniques.[""]